

BRUHAT BANGALORE MAHANAGARA PALIKE

Yelahanka Division

Name of work:- Construction of RO plant And other development works at JPN Colony Census block no 89/1,89/2 in Chowdeshwari ward No-02 of Yelahanka Sub division.

Description of Item	Unit	No	L	B	D	Qty	Estimate Cost RS		25.36 Lakh's
							Rate	Amount	

Earth work excavation by manual means for drains, canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such similar works in all kinds of soils, as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenances required to complete the work. Depth exceeding 1.5m, but not exceeding 3 m (PWD SR 2023-24 Vol -I Pg 5 item No. 1.4.2)

Footings:-F1	Cum	4	1.50	1.50	1.50	13.50			
Sump		1	2.40	2.10	1.80	9.07			
SSM Foundation:-Long wall		2	4.75	0.75	0.80	5.70			
short wall		2	1.75	0.75	0.80	2.10			
Desilting of drains		2	165.00	0.55	0.55	99.83			
						130.20	218.90	28500.12	
Basic rate	199.00								
Area weightage 10%	19.90								
Total	218.90								

Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. Mix 1:3:6 (M10) Using 40 mm nominal size graded crushed coarse aggregates. Specification (PWD SR 2023-24 Vol -I Pg A(67) item no 2.1.3)

Footings:-F1	Cum	4	1.50	1.50	0.15	1.35			
Sump		1	2.40	2.10	0.15	0.76			
SSM Foundation:-Long wall		2	4.75	0.75	0.15	1.07			
short wall		2	1.75	0.75	0.15	0.39			
Flooring		1	5.10	1.80	0.15	1.38			
						4.95	6327.20	31291.17	
Basic rate	5752.00								
Area weightage 10%	575.20								
Total	6327.20								

3 Providing Size Stone masonry with hard stone in foundation & plinth with Cement mortar 1:6 (1 cement : 6 coarse sand) (Vol 2/ P No-9/ 1 no- 5.4 of PWD SR 2023-24)

Below GL 1st footing:-Long wall	Cum	2	4.60	0.70	0.35	2.25			
short wall		2	1.80	0.70	0.35	0.88			
2nd footing:-Long wall		2	4.50	0.60	0.45	2.43			
short wall		2	1.90	0.60	0.45	1.03			
						6.59	7027.90	46327.92	
Basic rate	6389.00								
Area weightage 10%	638.90								
Total	7027.90								

4	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/bas crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, in layers, well compacted using needle vibrators, providing weep holes wherever necessary, including all lead & lifts, of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, cum and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately) Mix 1:2:4 (M15) Using 20 mm nominal size graded crushed coarse aggregates (P									
	Coping Concrete:-Long wall	Cum	2	4.50	0.45	0.15	0.61			
	short wall		2	2.00	0.45	0.15	0.27			
							0.88	6705.60	5884.16	
	Basic rate	6096.00								
	Area weightage 10%	609.60								
	Total	6705.60								
5	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations and other similar works etc. layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and upto 1.5 m. ((PWD SR 2023-24 Vol- 1 Pg A(60) / I.No -1.10)									
	Filling Available of Excavated Earth	Cum								
	Earth Work Excavation			From Item No. 1			130.20			
	(-)Deductions:-									
	PCC for Footing			From Item No. 2			4.95			
	SSM Footing			From Item No. 3			6.59			
	Footing Concrete Quantity			From Item No. 10			3.17			
							14.71			
							115.49	176.00	20326.50	
	Basic rate	160.00								
	Area weightage 10%	16.00								
	Total	176.00								
6	Loading and Unloading of Stone Boulder/Stone aggregates/ Sand/Kankar/Moorum. (Tipper 14 m3) (PWD SR 2023-24 Vol-III Page No.5, Item No.1.1C)									
	Excavated Earth	Cum		From Item No. 1+5			245.69			
							245.69	94.60	23242.13	
	Basic rate	86.00								
	Area weightage 10%	8.60								
	Total	94.60								
7	Cost of Haulage Excluding Loading and Unloading Taking output 10 t load and lead 10 km = 100 t.km (PWD SR 2023-24 Vol-III Page No.5, Item No.1.4A)									
		T.Km		245.69		1.28	314.48			
							314.48	117.60	36983.00	
	12x8	~~Basic rate~~ 12.00						105.60	33269.08	
	8Km 12*8	96.00								
	Area weightage 10%	9.60								
	Total	117.60								
		105.60								
8	Providing and constructing laterite size stone masonry including cost and conveyance of all material curing etc complete as per specification IS 3620/1979 having compressive strength not less than 3.5N/mm2 for saturated dry samples- for super structure in CM 1:6 (Vol 2 ,Page No-9,I no- 5.9 of PWD SR 2023-24)									
	Basement:-Long wall	Cum	2	4.45	0.45	0.20	0.80			
	Short wall		2	2.05	0.45	0.20	0.37			
							1.17	4352.70	5092.66	

Basic rate	3957.00								
Area weightage 10%	395.70								
Total	4352.70								

Providing Flush/ Ruled pointing: Pointing on stone work with cementmortar 1:3 (1 cement : 3 fine sand) after raking joints to depth nicely lining, including cost of materials, labour, curing as per specifications and as per directions of Engineer-in-charge.(PWD SR 2023-24 Vol- 2 P.No -44 / I.No -8.19.1)

Basement:-Long wall	Sqm	2	4.45		0.20	1.78			
Short wall		2	2.05		0.20	0.82			
						2.60	280.50	729.30	
Basic rate	255.00								
Area weightage 10%	25.50								
Total	280.50								

Providing and laying in position Reinforced cement concrete for all **Sub structures of building**, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/ trap/ basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necessary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately) M25 Design Mix Using 20 mm nominal size graded crushed coarse aggregates (Vol 2/ P No-65/ I no- 2.4.3 of PWD SR 2023-24)

Footings:-F1	Cum	4	1.20	1.20	0.55	3.17			
Coloumn up to plinth beam		4	0.40	0.20	0.80	0.26			
sump:-Bottom Slab		1	2.40	2.10	0.30	1.51			
Side Walls		2	2.40	0.20	1.80	1.73			
		2	2.10	0.20	1.80	1.51			
Cover Slab		1	2.40	2.10	0.15	0.76			
Plinth Beam:-Longer span		2	4.45	0.30	0.45	1.20			
Shorter Span		2	2.05	0.30	0.45	0.55			
						10.69	7483.21	79973.09	
Basic rate	6299.00								
Add 8% For Shuttering	503.92								
Sub Total	6802.92								
Area weightage 10%	680.29								
Total	7483.21								

Providing and laying in position Reinforced cement concrete for all **Super structures of building**, Road works, Water works, Irrigation works & super structure works of bridges upto 3.50 m height. The granite/ trap/ basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers laid in layers, well compacted using needle vibrators. The cost includes all lead & lifts, cost of all materials, quality confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement, dowel bars & formwork to be paid separately) M25 Design Mix Using 20 mm nominal size graded crushed coarse aggregates (Vol 2/ P No-73/ I no- 2.5.2 of PWD SR 2023-24)

Column's	Cum	4	0.40	0.20	3.15	1.01			
						1.01	7855.32	7918.16	
Basic rate	6492.00								
Add 10% for Shuttering	649.20								
Sub total	7141.20								
Area weightage 10%	714.12								
Total	7855.32								

	Lintels :-Long wall's	Cum	2	4.45	0.20	0.15	0.27		
	Short wall's		2	2.05	0.20	0.15	0.12		
	Chejja's		1	2.10	0.60	0.10	0.13		
							0.52	8569.44	4421.8
	Basic rate	6492.00							
	Add 20% for Shuttering	1298.40							
	Sub total	7790.40							
	Area weightage 10%	779.04							
	Total	8569.44							
	Roof Slab	Cum	1	5.10	2.10	0.15	1.61		
							1.61	8569.44	13766.8
	Basic rate	6492.00							
	Add 20% for Shuttering	1298.40							
	Sub total	7790.40							
	Area weightage 10%	779.04							
	Total	8569.44							
	Beam:-Longer Span	Cum	2	4.45	0.20	0.30	0.53		
	Shorter Span		2	2.05	0.20	0.30	0.25		
							0.78	8569.44	6684.16
	Basic rate	6492.00							
	Add 20% for Shuttering	1298.40							
	Sub total	7790.40							
	Area weightage 10%	779.04							
	Total	8569.44							
12	Providing and laying in position plain cement concrete for levelling course for all works in foundation. T granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately) Mix 1:3 (M10) Using 20 mm nominal size graded crushed coarse aggregates (Vol 1/ P No-46/ I no- 2.1.4 of PWD SR 2023-24)								
	Flooring	Cum	1	5.10	1.80	0.15	1.38		
							1.38	6518.60	8976.11
	Basic rate	5926.00							
	Area weightage 10%	592.60							
	Total	6518.60							
13	Providing Thermo-Mechanically Treated bars of grade Fe-550 Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position, binding and anchoring to adjacent members wherever necessary complete as per Design including cost of material, labour, usage charges complete as per specifications. (The laps and wastages shall not be measured separately) (Vol- 2 P.No. 84/I.No. 11.32 of PWD SR 2023-24 1st Corrigenda)								
		Kg's	1	14.60	120		1751.70		
							1751.70	105.60	184979.52
	Basic rate	96.00							
	Area weightage 10%	9.60							
	Total	105.60							

4421.8 Providing and constructing load bearing wall with solid concrete blocks of size 400X200X200mm having block density not less than 1800kg/m³ having a minimum average compressive strength 5.00N/mm² confirming to IS 2185 (part 1) :2005 and constructed with cement mortar 1:4, as per IS 2572:2005 including cost of materials, labour charges, scaffolding, curing, hire charges of machinaries etc., complete as per specifications. (Vol 2/ P No-17/ I no- 6.32 of PWD SR 2023-24)

Long wall	Sqm	2	4.50		3.00	27.00		
Short wall		2	1.80		3.00	10.80		
Steps		1	2.20	0.60		1.32		
		1	2.20	0.30		0.66		
						39.78		
(-)Deduction								
RS		1	1.80		2.10	3.78		
V		1	0.90		0.60	0.54		
						4.32		
						35.46	1441.00	51097.86
Basic rate	1310.00							
Area weightage 10%	131.00							
Total	1441.00							

16 Providing and constructing load bearing wall with Solid Concrete blocks of size 400x150x200mm having block density more than 1800kg/m³ and minimum compressive strength of 4.00 N/mm² conforming to IS 2185 (Part - I) - 2005 and constructed with CM 1:4 as per IS 2572:2005 including cost of all materials, labour, scaffolding and curing, usage charges of machinery etc complete as per specifications. (Vol 2/ P No-17/ I no- 6.33 of PWD SR 2023-24)

Parapet wall:-long wall	Sqm	2	5.10		0.60	6.12		
short wall		2	1.80		0.60	2.16		
						8.28	1354.10	11211.95
Basic rate	1231.00							
Area weightage 10%	123.10							
Total	1354.10							

16 Providing 18 mm cement plaster in two coats under layer 12 mm thick cement plaster with cement mortar 1:5 (1 cement : 5 coarse sand) and a top layer 6 mm thick cement plaster with cement mortar 1:3 (1 cement: 3 coarse sand) finished rough with sponge to brick masonry including rounding off corners wherever required smooth rendering, providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications and as per directions of Engineer-in-charge. (PWD SR 2023-24 Vol -II Pg 42 item no 8.9)

External Plastering:-Long wall	Sqm	2	4.50		3.00	27.00		
Short wall		2	1.80		3.00	10.80		
Roof Surface		1	4.50		1.80	8.10		
Parapet, Long wall		2	5.10		1.40	14.28		
short wall		2	1.80		1.40	5.04		
						65.22		
(-)Deduction								
RS		1	1.80		2.10	3.78		
V		1	0.90		0.60	0.54		
						4.32		
						60.90	423.50	25791.15
Basic rate	385.00							
Area weightage 10%	38.50							
Total	423.50							

17	Providing 12mm thick cement plaster in single coat with cement mortar 1:4, to brick masonry including rounding corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labouring complete as per specifications. (PWD SR 2023-24 Vol -II Pg 41 item no 8.4.2)							
	Internal Plastering:-	Sqm	2	4.60		3.00	27.60	
			2	1.80		3.00	10.80	
	Cealing		1	4.00	1.80		7.20	
							45.60	
	(-)Deductions							
	RS		1	1.80		2.10	3.78	
	V		1	0.90		0.60	0.54	
							4.32	
							41.28	355.30
								14666.7
	Basic rate	323.00						
	Area weightage 10%	32.30						
	Total	355.30						
18	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, to the plastered wall surface to prepare the surface even and smooth complete as per specifications and as per direction of Engineer in charge. (PWD SR 2023-24 Vol -II Pg 50 item no 8.51)							
	Internal Plastering	Sqm	Quantity Vide item No-17				41.28	
							41.28	110.00
	Basic rate	100.00						
	Area weightage 10%	10.00						
	Total	110.00						
19	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :Two coats on new wall after thoroughly brooming the surface to remove all dirt, dust, mortar drops and foreign matter including preparing surface even and sand paper smooth, cost of materials, labour complete as per specifications and as per directions of Engineer-in-charge. (PWD SR 2023-24 Vol -II Pg 48 item no 8.40)							
	Internal Painting	Sqm	Quantity Vide item No-17				41.28	
							41.28	126.50
	Basic rate	115.00						
	Area weightage 10%	11.50						
	Total	126.50						
20	Providing external walls with texture finish using approved brand paint, applied uniformly in three coats over one coat primer including cost of all materials, machineries, labour, transportation, loading and unloading, all lead and lift and other incidental charges including scaffolding and removing stains, complete as per specifications. (PWD SR 2023-24 Vol -II Pg 46 item no 8.31)							
	External painting	Sqm	Quantity Vide item No-16				52.80	
							52.80	195.80
	Basic rate	178.00						
	Area weightage 10%	17.80						
	Total	195.80						
21	Providing and laying 52 mm thick cement concrete flooring with concrete hardener topping, under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate 6 mm nominal size) volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per direction of Engineer incharge. (PWD SR 2023-24 Vol -II Pg 59 item no 9.2)							
	Hardner Concrete:-	Sqm	1	5.00	1.80		9.00	
							9.00	880.00
	Basic rate	800.00						
								7920.00

Area weightage 10%	80.00								
Total	880.00								
Providing and fixing 1st quality ceramic glazed floor tiles conforming to IS : 15622 (thickness to be specified by the manufacturer) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement: 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per m2 including pointing in white cement mixed with pigment of matching shade complete..(PWD SR 2023-24 Vol -II Pg 60 item no 9.10)									
	Sqm	1	5.00	1.80		9.00			
						9.00	1216.60	10949.40	
Basic rate	1106.00								
Area weightage 10%	110.60								
Total	1216.60								
Providing skirting, dadoing, rises of steps with colour glazed tiles 6mm thick on 10mm thick cement plaster 1:3 and jointed with white cement slurry over existing rough plaster surface using glazed tiles of approved make and size including cost of materials, labour, complete as per specifications.(PWD SR 2023-24 Vol -II Pg 65 item no 9.39)									
Wall cladding Tiles:-	Sqm	2	4.50		2.10	18.90			
		2	1.80		2.10	7.56			
						26.46			
(-)Deductions									
RS		1	1.80		2.10	3.78			
V		1	0.90		0.60	0.54			
						4.32			
Basic rate	1449.00					22.14	1593.90	35288.95	
Area weightage 10%	144.90								
Total	1593.90								
Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. Fixed to openings / wooden frames with rawl plugs screws etc. (PWD SR 2023-24 Vol -II Pg 86 item no 11.34B)									
V	Kg	1	0.90		0.60	0.54			
						0.54			
					21kg per sqm	11.34	201.30	2282.74	
Basic rate	183.00								
Area weightage 10%	18.30								
Total	201.30								
Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two coat applied @ 0.90 ltr/10 m ² over an under coat of primer applied @ 0.80 ltr/10 m ² of approved brand and manufacture including preparing the surface after thoroughly cleaning oil, grease, dirt and foreign matter, cost of materials, labour complete as per specifications and as per directions of Engineer-in-charge. (PWD SR 2023-24 Vol -II Pg 47 item no 8.33.3)									
V	Sqm	1	0.90		0.60	0.54			
						0.54	152.90	82.57	
Basic rate	139.00								
Area weightage 10%	13.90								
Total	152.90								

26	Providing & fixing of 3-track x 2-panel sliding windows made out of multi chambered UPVC(Matching to RAL sections and with minimum TiO2(Titanium Dioxide) at 6PHR with TPE(Thermo Plastic Elastomer) and lead free, grey colour having isolated drainage and reinforced with Galvanized Iron profile through-out the window frame. The frame having an overall size of 108mm width x 45mm height with reinforcement of 1mm thickness and Sash with size of 39mm x 75mm with GI reinforcement of 2mm and mesh sash of size 37mm x 58mm. Coextruded Glazing bearing fixing of glass shall be of size 20mm x 24 mm. Windows shall be provided with 6mm plain float glass, standard hardware & Multi point locking system with touch lock. Wall thickness of frame & sash shall be of 2mm-2.5 Maximum possible size – 2419mm x 2200mm. (The cost is inclusive of all fixtures and separate charges for minor T shall not be made). (PWD SR 2023-24 Vol -II Pg 110 item no 12.9)								
	V	Sqm	1	0.90		0.60	0.54		
	D		1	1.80		2.10	3.78		
							4.32	7407.40	31999.9
	Basic rate	6734.00							
	Area weightage 10%	673.40							
	Total	7407.40							
27	Construction of Embankment by excavating the available approved Gravel/Murum deposited at a place or borrow during or prior excavation with all lifts and lead, transportation to site, spreading, grading to required slope, compacting to meet the requirement complete as per specifications, including cost of labour, rolling, water materials, usage & all other appurtenances required to complete the work.. (PWD SR 2023-24 Vol -I Pg 14 item no 1.9)								
	Filling:-	Cum	1	4.00	1.50	0.45	2.70		
							2.70	442.20	1193.94
	Basic rate	402.00							
	Area weightage 10%	40.20							
	Total	442.20							
28	Providing and laying water proofing treatment to the Water tanks & Liquid Retaining structures with two components acrylic polymer modified cementitious waterproofing membrane with minimum elongation of 50% applied @ 1.5 kg for internal side waterproofing in two layers with waiting period of 4-6 hrs per layer and food grade epoxy coating in two coats certified by CFTRI Mysuru, including surface preparation completely as per specification & with a 10 year warranty on product & work from certified manufacturers as per the direction of the Engineer In charge. (PWD SR 2023-24 Vol -II Pg 150 item no 15.6)								
	Roof Area	Sqm	1	5.00	1.80		9.00		
							9.00	557.70	5019.30
	Basic rate	507.00							
	Area weightage 10%	50.70							
	Total	557.70							
29	Providing and fixing on wall face unplasticised rigid PVC rain water pipes conforming to IS:13592 Type A, including jointing with seal ring conforming to IS:5382, leaving 10mm gap for thermal expansion, [i] single socketed pipes 100mm diameter (PWD SR 2023-24 1st Corrigenda Vol II. page No. 125 .Item No 13.48)								
	Rain Water pipes	Mtr	2	3.00			6.00		
							6.00	320.10	1920.60
	Basic rate	291.00							
	Area weightage 10%	29.10							
	Total	320.10							

Providing and laying water proofing treatment to the Water tanks & Liquid Retaining structures with two component acrylic polymer modified cementitious waterproofing membrane with minimum elongation of 50% applied @ 1.5 kg/m² for internal side waterproofing in two layers with waiting period of 4-6 hrs per layer and food grade epoxy coating in two coats certified by CFTRI Mysuru, including surface preparation completely as per specification & with a 10 years warranty on product & work from certified manufacturers as per the direction of the Engineer In charge. (PWD SR 2023-24 Vol -II Pg 150 item no 15.6)

For sump								
Bottom slab	Sqm	1	2.40	2.10		5.04		
Sump walls		2	2.40		1.90	9.12		
		2	2.10		1.90	7.98		
Cover slab		1	2.40	2.10		5.04		
						27.18	557.70	15158.29
Basic rate	507.00							
Area weightage 10%	50.70							
Total	557.70							

Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x0.90 mm M.S. laths with 0.90 mm thick top cover including cost of materials, labour, usage charges of machinery complete as per specifications and as per directions of the Engineer-in-Charge. (PWD SR 2023-24 Vol -II Pg 78 item no 11.6.1)

Rolling Shutter	Sqm	1	1.80		2.10	3.78		
						3.78	2896.30	10948.01
Basic rate	2633.00							
Area weightage 10%	263.30							
Total	2896.30							

Providing and placing on terrace(at all floor levels), polyethylene water storage tanks as per IS 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank (For 1000 litre capacity) (PWD SR 2023-24 1st Corrigenda Vol II. SI No. 123. Item No 13.34).

Sintex	Ltr	2000				2000.00		
						2000.00	9.90	19800.00
Basic rate	9.00							
Area weightage 10%	0.90							
Total	9.90							

Supplying and installation of 2000 LPH RO drinking water treatment plant comprising of raw water storage tank, anti rolling closing system with pump & tank sand filler activated carbon filter, High pressure pump, R.O membranes, R.O. Pressure Tubes, Skid house the complete R.O plant, control panel, Chemical cleaning tank, Ph dosing system with pump and dosing tank product water storage UV Sterilizer Interconnecting piping with SKID, complete instrumentation with necessary gauges and flow indicator as required in the plant with PH meter etc...

	Nos.	1				1.00		
						1.00	1050000.00	1050000.00
Basic rate	1050000.00							
Total	1050000.00							

PTMT grating 100 mm dia. (PWD SR 2023-24 Vol II. Pg No. A-26 Item No 470)

Grating	Each	3				3.00		
						3.00	17.60	52.80

	Basic rate	16.00							
	Area weightage 10%	1.60							
	Total	17.60							
35	Providing and fixing brass bib cock of approved quality : 20 mm nominal bore (PWD SR 2023-24 Vol II. PgNo 117.1 No 13.2.2)								
	Bib Cock	Nos.	4				4.00		
							4.00	335.50	1342.00
	Basic rate	305.00							
	Area weightage 10%	30.50							
	Total	335.50							
36	Providing and fixing brass stop cock of approved quality : 20 mm nominal bore (PWD SR 2023-24 Vol II. PgNo 117.1 No 13.3.2)								
	Stop Cock	Nos.	4				4.00		
							4.00	335.50	1342.00
	Basic rate	305.00							
	Area weightage 10%	30.50							
	Total	335.50							
37	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete : 20 mm nominal bore (PWD SR 2023-24 Vol II. PgNo 117.1 Item No 13.5.2)								
	Valve	Nos.	6				6.00		
							6.00	345.40	2072.40
	Basic rate	314.00							
	Area weightage 10%	31.40							
	Total	345.40							
38	Providing and fixing Chlorinated Poly Vinyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp 1.00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of joints complete. (Concealed work including cutting chases and go the walls etc.,) 20mm nominal dia pipes (PWD SR 2023-24 1st Corrigenda Vol II. SL No. 122 .Item No 13.32.2)								
	Pipe	Mtr	1	24.00			24.00		
							24.00	416.90	10005.60
	Basic rate	379.00							
	Area weightage 10%	37.90							
	Total	416.90							
39	Providing and fixing on wall face unplasticised rigid PVC rain water pipes conforming to IS:13592 Type A, including jointing with seal ring conforming to IS:5382, leaving 10mm gap for thermal expansion, [i] single socketed pipes 100mm diameter (PWD SR 2023-24 1st Corrigenda Vol II. SL No. 125 .Item No 13.48)								
	Rain Water pipes	Mtr	2	3.00			6.00		
							6.00	320.10	1920.60
	Basic rate	291.00							
	Area weightage 10%	29.10							
	Total	320.10							
40	Supply and delivery of Centrifugal pumpset at site brand new best make and with discharge duty confirming to ISI standards and its latest amendments 2 HP, Size 50x40 Head 22M, Discharge 186 LPM (PWD SR 2023-24 Vol 5. Pg No. 164 .Item No 46.2)								
	Motor	Each	1				1.00		

						1.00	19217.00	19217.00
	Basic rate	17470.00						
	Area weightage 10%	1747.00						
	Total	19217.00						

Electrical Work

Open conduit System: Supplying heavy gauge PVC conduit pipe dia confirming to IS 2509 with suitable size bends, plugs in case of RCC ceiling and RCC wall stone structure or rawl plugs in case of brick walls and cement plastering damaged portion using heavy gauge saddles at an interval of 700mm using WF screws.a) 19/20mm dia 2mm thick (PWD Electrical SR 2023-24 Part III PgNo 2.Item No 1.1.1)

	Mtr	1	145.00			145.00		
						145.00	69.00	10005.00

Supplying and flush mounting teak wooden box without front plank, made of not less than 15mm thick wood, after due groove cutting, necessary masonry patch work complete. d)8''x6''x3''(203x152x76mm) (PWD Electrical SR 2023-24 Part III PgNo 3.Item No 1.6.4)

	Each	2				2.00		
						2.00	86.00	172.00

Point wiring using copper wire with switch Supplying and wiring adopting loop system in existing PVC Conduit/casing capping using Copper PVC insulated multi strand 2x1.5Sqmm copper wire with a 6Amps flush type SP control switch shall be fixed on the existing plastic sheet /gang box, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block.complete for each outlet. I. Point wiring using class A materials a) Short point upto 3Mtr from tapping point to out let via switch(PWD Electrical SR 2023-24 Part III PgNo 5.Item No 2.1.1)

	Point	2				2.00		
						2.00	285.00	570.00

Point wiring using copper wire with switch Supplying and wiring adopting loop system in existing PVC Conduit/casing capping using Copper PVC insulated multi strand 2x1.5Sqmm copper wire with a 6Amps flush type SP control switch shall be fixed on the existing plastic sheet /gang box, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block.complete for each outlet. I. Point wiring using class A materials b) Medium point above 3Mtr upto 6Mtr from tapping point to out let via switch(PWD Electrical SR 2023-24 Part III PgNo 5.Item No 2.1.2)

	Each	2				2.00		
						2.00	394.00	788.00

Point wiring using copper wire with switch Supplying and wiring adopting loop system in existing PVC Conduit/casing capping using Copper PVC insulated multi strand 2x1.5Sqmm copper wire with a 6Amps flush type SP control switch shall be fixed on the existing plastic sheet /gang box, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block.complete for each outlet. I. Point wiring using class A materials c) Long point above 6Mtr upto 10Mtr from tapping point to out let via switch (PWD Electrical SR 2023-24 Part III PgNo 5.Item No 2.1.3)

	Each	6				6.00		
						6.00	570.00	3420.00

Supplying 6A flush/projected type socket and a 6 amps flush/ projected type SP switch either surface/flush mounting in a existing gang box or in a 4mm thick plastic sheet and fixing over a flush mounted wooden box and wiring using necessary capacity wires as required. b) 6Amps 3/5 way (PWD Electrical SR 2023-24 Part III PgNo 8.Item No 3.1.2)

	Each	1				1.00		
						1.00	147.00	147.00

47	Wiring for lighting/power circuit using one of FLRS PVC insulated 1100v grade, multis and Copper WITH LOW type curve conductor single core cable in open or consealed system of wiring.I Group A Materials.a) 1.5 sqmm (PWD Electrical SR 2023-24 PART III PgNo 5.Item No 2.3.2)	Mtr	1	125.00		125.00		26.00	3250.00
						125.00			
48	Wiring for lighting/power circuit using one of FLRS PVC insulated 1100v grade, multis and Copper WITH LOW type curve conductor single core cable in open or consealed system of wiring.I Group A Materials.b) 2.5Sqmm (PWD Electrical SR 2023-24 PART III PgNo 5.Item No 2.3.3)	Mtr	1	120.00		120.00		42.00	5040.00
						120.00			
49	Wiring for lighting/power circuit using one of FLRS PVC insulated 1100v grade, multis and Copper WITH LOW type curve conductor single core cable in open or consealed system of wiring.I Group A Materials.c) 4 sqmm (PWD Electrical SR 2023-24 PART III PgNo 5.Item No 2.3.4)	Mtr	1	135.00		135.00		63.00	8505.00
						135.00			
50	Supplying 4mm thick plastic sheet with necessary niches for fixing switches, regulators etc., and fixing on existings wood or metal box using N.F.screws (SR 2023-24 PART III PgNo 9.Item No 3.8)	Sq cm	1500			1500.00		0.41	615.00
						1500.00			
51	Supplying and fixing retrofit type -PL-LED lamp...W LED linear Source with CCT 6500 degree K, CRI>70%efficacy>80 lumen per watt,life>25000 burning hours and compliance to IS 10322/IEC 60598,LM 79 and LM80.The LED are driven by HF electronicdriver integrated in the system, with PF>0.95, power loss Should <5% of lam Wattage.,short Circuit and open circuit Protection to be integrated Circuit, THD less than 20%,life as per LM79.the operating input voltage should be between130 t 275 volts.Tested by NABL/CPRI accredited laboratory with 2 years Warranty agnist any manufacturing defect working under standard electrical condition.18-20Watts (PWD Electrical SR 2023-24 PART III PgNo 43.Item No 11.2.2)	Each	6			6.00		702.00	4212.00
						6.00			
52	Supplying and fixing of T5 Fluorescent Tube with 14W power consumption with low 3mg Mercury content & below 40% glass content than T8 lamp & 20% less phosphor coating than T8 with initial lumen on 1350 (for 3000-6500 deg Kelvin), rated Avg life (12 Hr. Cycle) of greater than 35000 burring hours. Operating voltage range from 180V to 265V, 50Hz AC power Supply, 14 W Lamp (PWD Electrical SR 2023-24 PART III PgNo 49.Item No 12.18.1)	Each	4			4.00		141.00	564.00
						4.00			
53	Supply and fixing polished wood board made of not less than 15mm thick plank on both sides with plank made out of not more than 2 pices and fixing the same to the wall using tapered inverted woode plug screws etc., a) 20"x20"2.5" (PWD Electrical SR 2023-24 PART III PgNo 14.Item No 5.6.6)	Each	4			4.00			
						4.00		326.13	1304.52
54	Supplying and fixing of Procelain fuse channel with cut out on existings wooden/panel using necessary nuts, bolts and washers etc., complete.a) 32Amps (PWD Electrical SR 2023-24 PART III PgNo 14.Item No 5.7.2)	Each	6			6.00			
						6.00		241.00	1446.00

Copper WITH PWD Electrical SR 2023-24 PART III PgNo 15.Item No 5.11.1)	Supply of an load charge over switches 4poles 415v 50Hz A.C supply with AC23A duty a) up to 63amps Groups A (PWD Electrical SR 2023-24 PART III PgNo 15.Item No 5.11.1)								
	Each	1					1.00		
							1.00	5480.00	5480.00
Copper WITH PWD Electrical SR 2023-24 PART III PgNo 17.Item No 5.18.8)	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and C type curve indicator ON/OFF Energy cross 3 with short circuit breaking capacity of 10K and complete wiring as required. 40 A TPN . Group A (PWD Electrical SR 2023-24 PART III PgNo 17.Item No 5.18.8)								
	Each	1					1.00		
							1.00	3044.00	3044.00
Copper WITH PWD Electrical SR 2023-24 PART III PgNo 17.Item No 5.18.4)	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and C type curve indicator ON/OFF Energy cross 3 with short circuit breaking capacity of 10K and complete wiring as required. 6-32amps TPN Group A (PWD Electrical SR 2023-24 PART III PgNo 17.Item No 5.18.4)								
	Each	1					1.00		
							1.00	1717.00	1717.00
existing 58	Supplying, fixing and wiring Electronic Trivector Meter (ETV) 5 to 32/63 A three phase 4 wire whole current class-1 Accuracy Energy Meter.(PWD Electrical SR 2023-24 PART III PgNo 19.Item No 5.35)								
	Each	1					1.00		
							1.00	5705.00	5705.00
59	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipments on the meter board using 40mm dia 2.90 thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm around the pipe to complete depth. the connection form the pipe to the conduit etc, is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and checknuts etc, the pipe shall have 16 through holes of 12mm dia. (PWD Electrical SR 2023-24 PART III PgNo 54.Item No 12.56)								
	Nos.	1					1.00		
							1.00	3510.00	3510.00
60	Supplying and running of GI/Copper strips for grounding connections using necessary fixing material as required GI strip 25x3mm (PWD Electrical SR 2023-24 PART III PgNo 54.Item No 12.58.2)								
	Mtr	1	20.00				20.00		
							20.00	82.00	1640.00
61	Supplying and fixing of class A (medium duty) GI pipe. of wall thick ness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV class. a) 40mm								
	Mtr	1	4.00				4.00		
							4.00	335.00	1340.00
62	Supplying and running of GI/Copper strips for grounding connections using necessary fixing material as required GI strip 25x3mm								
	Mtr	25					25.00		
							25.00	75.00	1875.00

63	Supplying of LT UG cable having aluminium conductor PVC insulated, sheathed, galvanised, steel wire/steel tap armoured cable with PVC outer sheathing 1.1 KV class.I. Class 'A' PVC Cable.d) 4 core 16 sqmm	Mtr	20				20.00			
							20.00	150.00		3000.00
64	Labour charges for lying of 1.1 KV class UG cable when supplied agency in existing trench GI pipe / stoneware pipe / on wall / on pole as required. I. In existing trench/duct.a) 6 sqmm to 16 sqmm	Mtr	20				20.00			
							20.00	11.88		237.60
65	Digging of trench of 0.6 m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc.,complete. .a) In soil (ordinary)	Mtr	25				25.00			
							25.00	76.00		1900.00
66	Supplying & fixing 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers ect.b) 16 Sqmm	Each	6				6.00			
							6.00	270.00		1620.00
67	Providing and fixing Precast RCC Slabs 100mm Thick as Per approved design, specification and Direction Engineer-in-Charge. (Approved Data Rate).	Sqm	184	0.90	0.60		99.36			
							99.36	2072.00		205873.92
68	BESCOM Charges	L/S						18000		18000.00
	Miscellaneous and Unforcean charges									514.19
	Grand Total RS									2536000.00

CERTIFICATE:

- 1) The work spot has been inspected and found to be necessary
- 2) The work spot comes under B.B.M.P
- 3) The provisions made in the estimate are necessary and minimum.
- 4) The estimate is based on S.R of 2023-2024, PWD Electrical SR 2023-24, Data Rates, Issused Rates and Corrigenda 1 &

[Signature]
Assistant Engineer
Ward No-02

[Signature]
Executive Engineer
Yelahanka Division
BBMP

[Signature]
Assistant Executive Engineer
Yelahanka Sub Division
BBMP

Technical Sanction
Accorded For Rs. 25.36 Lacs
Head of A/C P-1878
CER NO 77 DU 2/2/2024